



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/034,145

12/28/2001

Grant Wunsch

TI-33053

1630

23494

7590

03/21/2007

TEXAS INSTRUMENTS INCORPORATED

P O BOX 655474, M/S 3999

DALLAS, TX 75265

EXAMINER

DALENCOURT, YVES

ART UNIT

PAPER NUMBER

2157

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

03/21/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/034,145

Applicant(s)

WUNSCH, GRANT

Examiner

Yves Dalencourt

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-11 and 14-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30-39 and 42-43 is/are allowed.
- 6) ☒ Claim(s) 1-4,6-11,14-29,40,41 and 44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This office action is responsive to amendment filed on 08/22/2006. The Petition to revive this application has been granted. Thus, the prosecution of such application has been reopened.

#### ***Response to Amendment***

The Examiner has acknowledged the amended claims 1, 9, 11, 16, 24, 30, 38 – 43, the cancellation of claims 5, 12 – 13, and the submission of new claims 44 – 45.

#### ***Response to Arguments***

Applicant's arguments filed on 08/22/2006 have been fully considered but they are not persuasive.

Regarding Applicant's only argument (page 1), the Examiner contends that Hoo in combination with "G.voice, G.dmt.bis, G.lite.bis: Proposal for Seamless Dynamic Rate Repartition for CVoDSL" do disclose the idea of determining an implementation timing information indicating a time in which the reconfiguration transceive parameters should be implemented. On page 7, the second paragraph indicates that DRR\_SFN shows when to effect the changes negotiated by DRRF or the DRR\_SFN to be sent, it must be "determined" first].

In view of such, the rejection is maintained as follows:

***Claim Objections***

Claim 6 is objected to because of the following informalities: It is suggested to delete " wherein and " (line 1). Appropriate correction is required.

**Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 recites the limitation "wherein the acknowledgement timing information" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim. Such limitation does not further define claim 2. It appears that claim 3 should depend on claim 1.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 16 and 44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claimed invention as a whole does not produce a tangible result.

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials

to a different state or thing. However, the tangible requirement does require that the claim must recite more than a 35 U.S.C. 101 judicial exception, in that the process claim must set forth a practical application of that judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application.”). “[A]n application of a law of nature or mathematical formula to a ... process may well be deserving of patent protection.” Diehr, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also Corning, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 (“It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . .”). In other words, the opposite meaning of “tangible” is “abstract.”

In this case, **claim 16** only produces result “if the ack/comply indicates that the reconfiguration transceiver parameters are to be implemented. However, such claim has not provided any results if the ack/comply **does not** indicate that the reconfiguration transceiver parameters are to be implemented. Thus, claim 16 is directed in part to an “abstract idea.” The claim lacks “**tangible results**“. There are no tangible results being produced.

Claim 44 is directed to an “abstract idea” because it does not represent a practical application of the idea. Such claim lacks “**tangible results**“. There are no tangible results being produced.

**Therefore, claims 16 and 44 are non-statutory.**

Claims 16 - 23 and 45 are necessarily rejected as being dependent upon the rejection of claims 16 and 44.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-11, 14-29, and 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoo et al (Hoo hereinafter) in view of "G.voice, G.dmt.bis, G.lite.bis: Proposal for Seamless Dynamic Rate Repartition for CVoDSL" (DRR\_REF hereinafter).

With reference to claim 1, Hoo shows a method comprising:  
determining reconfiguration transceive parameters for indicating a reconfiguration of a data communication channel [lines 51-57, column 5]; transmitting the reconfiguration transceive parameters and the ack/comply timing information [lines 63-65, column 5 (ack/comp information is not shown)]; and

Hoo does not show, but DRR\_REF shows the timing information related components of the limitation: determining ack/comply timing information indicating a time at which an ack/comply is expected [the feature is inherent in

DRR\_REF. DRR\_SFN in DRR\_REF (See page 7) is the ack/comply timing information. Determining an implementation timing information indicating a time in which the reconfiguration transceive parameters should be implemented. On page 7, the second paragraph indicates that DRR\_SFN shows when to effect the changes negotiated by DRRF or the DRR\_SFN to be sent, it must be "determined" first]; receiving a physical media dependent ack/comply signal indicating whether reconfiguration transceive parameters are to be implemented, the ack/comply signal being received at a time determined by the ack/comply timing information. [See page 7, 4th paragraph, which speaks of ATU-C. ATU\_C is to receive a DRR\_ACK signal from at the specific superframe count equal to DRR\_SFN].

It would have been obvious to one of ordinary skill in the art at the time of the invention to configure and transmit timing information with the request. The timing information affords better synchronization. The suggestion related to the superframe number is given in lines 23-43, column 6, where Hoo speaks of super frame number.

With regard to claim 2, DRR\_REF shows that a physical media dependent ack/comply signal comprises receiving an ack/comply signal that is encoded within a synch symbol. See page 7, Section 3.3.2 DRR\_Ack. The signal is PMD sync symbol.

With regard to claim 3, DRR\_REF shows that the acknowledgment timing information comprises an indication of a specific synch symbol. See page 7,

Section 3.3.2 DRR\_Ack. The symbol is something that is specifically dedicated for the synchronization.

With regard to claim 4, DRR\_REF shows implementing the reconfiguration transceiver parameters in response to the ack/comply signal. See 3.3.2 DRR\_Ack. The third paragraph in the section mentions that DRR\_Ack signal is the synchronization flag after which the reconfiguration is implemented.

With regard to claim 6, DRR\_REF further shows implementing the reconfiguration transceiver parameters in response to the ack/comply signal, the reconfiguration transceiver parameters being implemented at a time in accordance with the implementation timing information. On page 7, see the second paragraph that explains DRR\_SF\_N indicates when DRR Ack must arrive from the ATU\_R to be valid.

With regard to claim 7, DRR\_REF shows the reconfiguration transceiver parameters and the ack/comply timing information are transmitted over an OAM channel. See the second paragraph, on page 7. It explains that the DRR\_Request is sent over a framing overhead channel.

With regard to claim 8, Hoo shows the reconfiguration transceiver parameters include information to implement a bit swap. See lines 48-65, column 5 directed to the receiver. Therefore, the same reasons for the rejections of claims 1-8 apply to claims 9-29.

With regard to claims 9-29 and 40-41, they speak of lower OAM channel. Hoo mentions auxiliary overhead channel. See lines 44-56, column 6 and ADSL



overhead channel. See lines 6-28, column 11. Any of these channels, one of which maybe termed "lower" OAM channel, are available, and therefore it would be obvious to use them for signaling and acknowledgment/comply.

Claims 9-29 substantively incorporate new limitations that describe what a transmitter does in response to receiver that initiates the reconfiguration. They mirror the limitations that are directed to the receiver. Therefore, the same reasons for the rejections of claims 1-8 apply to claims 9-29

Claims 40-41 substantively incorporate a number of limitations of claims 1-29, but in apparatus form rather than in method form. The reasons for the rejection of claims 1-29 apply to claims 40-41. Therefore, claims 40-41 are rejected for the same reasons.

#### ***Allowable Subject Matter***

Claims 30 – 39 and 42 – 43 are allowed.

#### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 2157

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yves Dalencourt whose telephone number is (571) 272-3998. The examiner can normally be reached on M-TH 7:30AM - 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 12, 2007

  
YVES DALENCOURT  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 2100